

## ABSTRACT OF THE DISCLOSURE

A fluid machinery is composed of a driving mechanism and a helical mechanism connected to the driving mechanism to be driven thereby through a crank shaft. The helical mechanism includes a cylinder defining an inner space as operation section, a roller disposed inside the cylinder so as to be rotated in an eccentric manner, the roller being formed with a plurality of helical grooves on an outer peripheral surface thereof and at least one seal ring groove formed at a portion between respective helical grooves, a plurality of helical blades fitted to the helical grooves so as to be disposed between an inner peripheral surface of the cylinder and the outer peripheral surface of the roller, and at least one seal ring fitted to the seal ring groove so as to tightly seal the inner space as a plurality of operation sections. Furthermore, a plurality of suction ports formed to the respective operation sections and a plurality of drain ports formed to the respective operation sections so that the corresponding suction port and drain port are communicated with each other.